

1. General Information

- **Full Name:** Esubalew Alemneh (PhD)
- **Position:** Director, ICT4D research Center
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- **Office:** Poly Campus, PhD Building, 2nd floor, office # 203 | Poly Campus, B-26, 2nd Floor, office #10
- **Membership of ICT4D:** Since February 2020
- **HomeBase:** Faculty of Computing, Bahir Dar Institute of Technology

2. Education:

Degree	Year of Award	Awarding Institution
PhD(Computer Science)	October 2019	University of Burgundy, ISAT, DRIVE Lab, France
MSc(Software Engineering)	June 2009	University Putra Malaysia, Kuala Lumpur, Malaysia
BSc(Computer Science)	July 2005	Addis Abeba University, Ethiopia

3. Work Experiences:

No.	Duration	Position
1	May 2014 To Date	Assistant Professor, Faculty Computing, Bahir Dar Institute of technology, Bahir Dar University
2	January 2015 to November 2016	Course Chair Holder, System Development Course Chair Bahir Dar University, Bahir Dar, Ethiopia
3	October 11, 2014 - November 2016	Director, Technology Teaching-Learning Process Bahir Dar University, Bahir Dar, Ethiopia
4	January 20, 2011 - September 2014	Website Administrator, Bahir Dar University, Bahir Dar, Ethiopia
5	September 2010 - November 2013	System Analyst and Designer (Part time), Froly Computer Systems P.L.C Bahir Dar, Ethiopia
6	September 2009 - October 2014	System Analyst and Designer, System Design and Development Case Team, Bahir Dar University, Bahir Dar, Ethiopia
7	July 2009 -May 2014	Lecturer, School of Computing and Electrical Engineering Institute of technology, Bahir Dar University
8	August 2006 - July 2009	Graduate Assistant II, Computer Science Department Engineering Faculty, Bahir Dar University, Bahir Dar, Ethiopia
9	August 2005 - August 2006	Graduate Assistant I, Computer Science Department Engineering Faculty, Bahir Dar University, Bahir Dar, Ethiopia

4. Courses Taught:

Undergraduate: Only courses which are taught for 3 or more semesters are included

- Software Testing
- Introduction to Software Architecture and Design
- Requirement Engineering
- Compiler Design
- Software Engineering

- Automata and Formal Language theory
- *Programming*: Introduction to Programming (FORTRAN, C++, Java), Web Page Design (HTML and CSS), Event-driven programming (VB & C#), Object Oriented Design (Java & C++)
- Information Communication Technology

Postgraduate:

- Software Design and Architecture
- Human Computer Interaction
- Advanced Requirement Engineering
- Compilers & Programming Languages

5. Software Developments and Consultancy:

No.	System	Owner of the System
1	Consulting Enterprise Resource Planning (ERP)	Amhara Water Works Construction Enterprise, Bahir Dar Ethiopia
2	Developed more than 20 websites	ANRS Water, Irrigation and Energy Bureau, ANRS Affairs Office, Awi Development Association, Highland College, Mulugeta Yetwale Import and Export, Amhara Women Association, Bahir Dar University and various academic unites, etc
3	Integrated Market Information System	Amhara National Regional State Trade Bureau, Bahir Dar Ethiopia
4	Lease Holding Information Management System	Ministry of Urban Development, Housing and Construction, Federal Integrated Urban Land Information Project Office, Bahir Dar Ethiopia
5	Property Administration System	Bahir Dar University, Bahir Dar Ethiopia
6	Local Economic Development Information Management System	Bahir Dar City Administration, Bahir Dar Ethiopia

6. Current and Previous Research works:

Current Research Works:

- An Integrated Mobile Device-based Driver-Assistance System
- A seamless handover technique for mobile IoT applications in fog computing environment

Previous Researches:

- Assegahegn Endalew and Esubalew Alemneh, *Trend of Research Data Archiving and Sharing in Ethiopian Research Universities and Institutes*, October 2016 - June 2017, funded by Bahir Dar University, Bahir Dar Institute of Technology.

7. Publications:

Journals, Proceedings, Book Chapters, Others:

1. **Esubalew Alemneh**, Sidi-Mohammed Senouci, Mohamed-Ayoub Messous, "An Energy-Efficient Fuzzy Logic-based Adaptive Beaconing Rate Management for Pedestrian Safety", *Pervasive and Mobile Computing Journal*, Volume 69, November 2020, 101285, <https://doi.org/10.1016/j.pmcj.2020.101285>
2. **Esubalew Alemneh**, Sidi-Mohammed Senouci, Philippe Brunet, and Tesfa Tegegne, "A two-way trust management system for fog computing", *Journal of Future Generation Computer Systems*, <https://doi.org/10.1016/j.future.2019.12.045>, 2019.
3. **Esubalew Alemneh**, and Sidi-Mohammed Senouci, "Ensuring Safety of Vulnerable Road Users using their smartphones and fogging: Challenges and Solutions", *IEEE ComSoc AHSN TC Newsletter*, 2019.

4. **Esubalew Alemneh**, Sidi-Mohammed Senouci, Philippe Brunet, An Energy Efficient Smartphone Sensors' Data Fusion for High Rate Position Sampling Demands, *IEEE Consumer Communications and Networking Conference (CCNC2019)*, 11-14 January 2019, Las Vegas, USA
5. **Esubalew Alemneh**, Sidi-Mohammed Senouci, Philippe Brunet, An Online Time Warping based Map Matching for Vulnerable Road Users' Safety, *14th International Wireless Communications and Mobile Computing Conference (IWCMC 2018)*, June 24-29, St. Raphael Resort & Marina, Limassol, Cyprus.
6. **Esubalew Alemneh**, Sidi-Mohammed Senouci, Philippe Brunet, PV-Alert: A Fog-based Architecture for Safeguarding Vulnerable Road Users, *IEEE GIIS'2017*, October 25-27, 2017, Saint Pierre, Reunion Island, France.
7. Ahmed Alioua, Sidi-Mohammed Senouci, Samira Moussaoui, **Esubalew Alemneh**, Med-Ahmed-Amine Derradji, Fella Benaziza, A Distributed Multi-hop Clustering Algorithm for Infrastructure-less Ad-Hoc Networks, *1st EAI International Conference on ICT for Development for Africa*, September 25-27, 2017, Bahir Dar Ethiopia.
8. Mamo Abebe, **Esubalew Alemneh**, Ontology Development for Anemic Pregnant Women, *5th International Conference on the Advancement of Science and Technology*, May 2017, Bahir Dar, Ethiopia.

Theses:

1. *PhD Thesis: "Fog Computing based traffic safety for Connected Vulnerable Road Users"*
2. *MSc Thesis: "A Static Analysis Tool for Business Process Execution Language Source Code Metrics Computation and Control Flow Graph Visualization"*

8. **Membership of Professional Socialites:**

- Ethiopian Information Technology Professionals Association (EITPA), member
- Ethiopian Internet Society, member

9. **Skills and Abilities:**

- Software Development
- Project Management
- Research experience
- Leadership (Team leader, and office Head)
- Teaching

10. Trainings Taken:

Date	Training
October 28, 2013 - January 05, 2014	Successful Completion of online training on Machine Learning by Stanford University
January 07, 2013 – February 11, 2013	Successful Completion of online training on Software as service by BerkeleyX, an online learning initiative of the University of California At Berkeley through edX.
February, 2011	Successfully participated in one day "Improving to Teach" Training Focusing on Scientific Writing, by Bahir Dar University
November 2006	Introduction to Free and Open Source Software (FOSS/Linux) by EFOSSnet and Bahir Dar University
October 2005	Pedagogical Skills by Bahir Dar University

11. Trainings Provided:

Date	Training
November 30 2018	Project Proposal Writing and Documenting Software Development Projects, Graduating undergraduate students of Faculty of Computing, Bahir Dar Institute of Technology
September 24 -30, 2017	Software Testing and Quality Assurance, Selected Land Administration officials from various city administrations, Ethiopia
February 26, 2015 and March 05, 2015	E-Learning using Moodle,Staffs of Faculty of Education and Behavioral Science and Bahir Dar Institute of Technology, Bahir Dar University
January 20, 2011 - September 2014	Website Administration, for website administrators of various Unites of Bahir Dar University
September 17 – 30, 2011	Basic Computer Skills, BDU's Plan, Budget, and Finance Business ProcessStaff

12. Research Interests:

My research interests are

- Requirement Engineering
- Software Engineering
- Software Metrics
- Cloud/Fog Computing
- Wireless Communication
- Internet of Things (IoT)
- Trust Management

13. References:

1. Prof Sidi-Mohammed Senouci, University of Burgundy, Director of DRIVE Lab, Nevers, France, **email:** Sidi-Mohammed.Senouci@u-bourgogne.fr
2. Dr. Philippe Brunet (Asc Prof), University of Burgundy, Director of DRIVE Lab, Nevers, France, **email:** Philippe.Brunet@u-bourgogne.fr
3. Dr. TesfaTegegn (Asst. Professor), Faculty of Computing Engineering, Bahir Dar Institute of Technology, Bahir Dar University, Bahir Dar, Ethiopia, **email:**tesfat@gmail.com